

Suggested Reading

Main Session: Evaluation and Management of Cardiogenic Shock

1. Baran DA, Grines CL, Bailey S, et al. SCAI clinical expert consensus statement on the classification of cardiogenic shock: This document was endorsed by the American College of Cardiology (ACC), the American Heart Association (AHA), the Society of Critical Care Medicine (SCCM), and the Society of Thoracic Surgeons (STS) in April 2019. *Catheter Cardiovasc Interv.* 2019;94:29-37. DOI: [10.1002/ccd.28329](https://doi.org/10.1002/ccd.28329)
2. Roswell RO, Wong MP, Stefanescu Schmidt AC, et al. Case 8-2024: A 55-Year-Old Man with Cardiac Arrest, Cardiogenic Shock, and Hypoxemia. *N Engl J Med.* 2024;390:1030-1043. DOI: [10.1056/NEJMcp2300970](https://doi.org/10.1056/NEJMcp2300970)

Group 1: Early Identification and Initial Management

3. Abraham J, Blumer V, Burkhoff D, et al. Heart Failure-Related Cardiogenic Shock: Pathophysiology, Evaluation and Management Considerations: Review of Heart Failure-Related Cardiogenic Shock. *J Card Fail.* 2021;27:1126-1140. DOI: [10.1016/j.cardfail.2021.08.010](https://doi.org/10.1016/j.cardfail.2021.08.010)
4. Garan AR, Kataria R, Li B, et al. Outcomes of Patients Transferred to Tertiary Care Centers for Treatment of Cardiogenic Shock: A Cardiogenic Shock Working Group Analysis. *J Card Fail.* 2023. DOI: [10.1016/j.cardfail.2023.09.003](https://doi.org/10.1016/j.cardfail.2023.09.003)
5. Kapur NK, Kanwar M, Sinha SS, et al. Criteria for Defining Stages of Cardiogenic Shock Severity. *J Am Coll Cardiol.* 2022;80:185-198. DOI: [10.1016/j.jacc.2022.04.049](https://doi.org/10.1016/j.jacc.2022.04.049)
6. Naidu SS, Baran DA, Jentzer JC, et al. SCAI SHOCK Stage Classification Expert Consensus Update: A Review and Incorporation of Validation Studies: This statement was endorsed by the American College of Cardiology (ACC), American College of Emergency Physicians (ACEP), American Heart Association (AHA), European Society of Cardiology (ESC) Association for Acute Cardiovascular Care (ACVC), International Society for Heart and Lung Transplantation (ISHLT), Society of Critical Care Medicine (SCCM), and Society of Thoracic Surgeons (STS) in December 2021. *J Am Coll Cardiol.* 2022;79:933-946. DOI: [10.1016/j.jacc.2022.01.018](https://doi.org/10.1016/j.jacc.2022.01.018)
7. Sinha SS, Rosner CM, Tehrani BN, et al. Cardiogenic Shock From Heart Failure Versus Acute Myocardial Infarction: Clinical Characteristics, Hospital Course, and 1-Year Outcomes. *Circ Heart Fail.* 2022;15:e009279. DOI: [10.1161/CIRCHEARTFAILURE.121.009279](https://doi.org/10.1161/CIRCHEARTFAILURE.121.009279)
8. Tehrani BN, Sherwood MW, Rosner C, et al. A Standardized and Regionalized Network of Care for Cardiogenic Shock. *JACC Heart Fail.* 2022;10:768-781. DOI: [10.1016/j.jchf.2022.04.004](https://doi.org/10.1016/j.jchf.2022.04.004)
9. Tehrani BN, Truesdell AG, Psotka MA, et al. A Standardized and Comprehensive Approach to the Management of Cardiogenic Shock. *JACC Heart Fail.* 2020;8:879-891. DOI: [10.1016/j.jchf.2020.09.005](https://doi.org/10.1016/j.jchf.2020.09.005)

10. van Diepen S, Katz JN, Albert NM, et al. Contemporary Management of Cardiogenic Shock: A Scientific Statement From the American Heart Association. *Circulation*. 2017;136:e232-e268. DOI: [10.1161/CIR.0000000000000525](https://doi.org/10.1161/CIR.0000000000000525)

Group 2: Hemodynamics

11. Berg DD, Kaur G, Bohula EA, et al. Prognostic significance of haemodynamic parameters in patients with cardiogenic shock. *Eur Heart J Acute Cardiovasc Care*. 2023;12:651-660. DOI: [10.1093/ehjacc/zuad095](https://doi.org/10.1093/ehjacc/zuad095)
12. Garan AR, Kanwar M, Thayer KL, et al. Complete Hemodynamic Profiling With Pulmonary Artery Catheters in Cardiogenic Shock Is Associated With Lower In-Hospital Mortality. *JACC Heart Fail*. 2020;8:903-913. DOI: [10.1016/j.jchf.2020.08.012](https://doi.org/10.1016/j.jchf.2020.08.012)
13. Hernandez-Montfort J, Sinha SS, Thayer KL, et al. Clinical Outcomes Associated With Acute Mechanical Circulatory Support Utilization in Heart Failure Related Cardiogenic Shock. *Circ Heart Fail*. 2021;14:e007924. DOI: [10.1161/CIRCHEARTFAILURE.120.007924](https://doi.org/10.1161/CIRCHEARTFAILURE.120.007924)
14. Kadosh BS, Berg DD, Bohula EA, et al. Pulmonary Artery Catheter Use and Mortality in the Cardiac Intensive Care Unit. *JACC Heart Fail*. 2023;11:903-914. DOI: [10.1016/j.jchf.2023.04.007](https://doi.org/10.1016/j.jchf.2023.04.007)
15. Kanwar MK, Blumer V, Zhang Y, et al. Pulmonary Artery Catheter Use and Risk of In-hospital Death in Heart Failure Cardiogenic Shock. *J Card Fail*. 2023;29:1234-1244. DOI: [10.1016/j.cardfail.2023.05.001](https://doi.org/10.1016/j.cardfail.2023.05.001)
16. Saxena A, Garan AR, Kapur NK, et al. Value of Hemodynamic Monitoring in Patients With Cardiogenic Shock Undergoing Mechanical Circulatory Support. *Circulation*. 2020;141:1184-1197. DOI: [10.1161/CIRCULATIONAHA.119.043080](https://doi.org/10.1161/CIRCULATIONAHA.119.043080)
17. Thayer KL, Zweck E, Ayouty M, et al. Invasive Hemodynamic Assessment and Classification of In-Hospital Mortality Risk Among Patients With Cardiogenic Shock. *Circ Heart Fail*. 2020;13:e007099. DOI: [10.1161/CIRCHEARTFAILURE.120.007099](https://doi.org/10.1161/CIRCHEARTFAILURE.120.007099)

Group 3: Pharmacology Management

18. Byrne RA, Rossello X, Coughlan JJ, et al. 2023 ESC Guidelines for the management of acute coronary syndromes. *Eur Heart J Acute Cardiovasc Care*. 2024;13:55-161. DOI: [10.1093/eurheartj/ehad191](https://doi.org/10.1093/eurheartj/ehad191) Cardiogenic shock complicating acute coronary syndrome Section
19. De Backer D, Biston P, Devriendt J, et al. Comparison of dopamine and norepinephrine in the treatment of shock. *N Engl J Med*. 2010;362:779-789. DOI: [10.1056/NEJMoa0907118](https://doi.org/10.1056/NEJMoa0907118)
20. Heidenreich PA, Bozkurt B, Aguilar D, et al. 2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *J Am Coll Cardiol*. 2022;79:e263-e421. DOI: [10.1016/j.jacc.2021.12.012](https://doi.org/10.1016/j.jacc.2021.12.012) Section 9.5

21. Levy B, Clere-Jehl R, Legras A, et al. Epinephrine Versus Norepinephrine for Cardiogenic Shock After Acute Myocardial Infarction. *J Am Coll Cardiol*. 2018;72:173-182. DOI: [10.1016/j.jacc.2018.04.051](https://doi.org/10.1016/j.jacc.2018.04.051)
22. Mathew R, Di Santo P, Jung RG, et al. Milrinone as Compared with Dobutamine in the Treatment of Cardiogenic Shock. *N Engl J Med*. 2021;385:516-525. DOI: [10.1056/NEJMoa2026845](https://doi.org/10.1056/NEJMoa2026845)
23. van Diepen S. Norepinephrine as a First-Line Inopressor in Cardiogenic Shock: Oversimplification or Best Practice? *J Am Coll Cardiol*. 2018;72:183-186. DOI: [10.1016/j.jacc.2018.04.052](https://doi.org/10.1016/j.jacc.2018.04.052)
24. van Diepen S, Katz JN, Albert NM, et al. Contemporary Management of Cardiogenic Shock: A Scientific Statement From the American Heart Association. *Circulation*. 2017;136:e232-e268. DOI: [10.1161/CIR.0000000000000525](https://doi.org/10.1161/CIR.0000000000000525) Management of CS/Vasopressors and Inotropes Section

Group 4: Mechanical Circulatory Support

25. Basir MB, Lemor A, Gorgis S, et al. Early Utilization of Mechanical Circulatory Support in Acute Myocardial Infarction Complicated by Cardiogenic Shock: The National Cardiogenic Shock Initiative. *J Am Heart Assoc*. 2023;12:e031401. DOI: [10.1161/JAHA.123.031401](https://doi.org/10.1161/JAHA.123.031401)
26. Fried JA, Nair A, Takeda K, et al. Clinical and hemodynamic effects of intra-aortic balloon pump therapy in chronic heart failure patients with cardiogenic shock. *J Heart Lung Transplant*. 2018;37:1313-1321. DOI: [10.1016/j.healun.2018.03.011](https://doi.org/10.1016/j.healun.2018.03.011)
27. Grandin EW, Nunez JI, Willar B, et al. Mechanical Left Ventricular Unloading in Patients Undergoing Venoarterial Extracorporeal Membrane Oxygenation. *J Am Coll Cardiol*. 2022;79:1239-1250. DOI: [10.1016/j.jacc.2022.01.032](https://doi.org/10.1016/j.jacc.2022.01.032)
28. Hanson ID, Rusia A, Palomo A, et al. Treatment of Acute Myocardial Infarction and Cardiogenic Shock: Outcomes of the RECOVER III Postapproval Study by Society of Cardiovascular Angiography and Interventions Shock Stage. *J Am Heart Assoc*. 2024;13:e031803. DOI: [10.1161/JAHA.123.031803](https://doi.org/10.1161/JAHA.123.031803)
29. Kwon JH, Bentley D, Cevasco M, et al. Patient Characteristics and Early Clinical Outcomes With Impella 5.5: A Systematic Review and Meta-Analysis. *ASAIO J*. 2024. DOI: [10.1097/MAT.0000000000002169](https://doi.org/10.1097/MAT.0000000000002169)
30. Moller JE, Gerke O, DanGer Shock I. Danish-German cardiogenic shock trial-DanGer shock: Trial design update. *Am Heart J*. 2023;255:90-93. DOI: [10.1016/j.ahj.2022.10.078](https://doi.org/10.1016/j.ahj.2022.10.078)
31. Soltes J, Rob D, Kavalkova P, et al. Growing Evidence for LV Unloading in VA ECMO. *J Clin Med*. 2023;12:6069. DOI: [10.3390/jcm12186069](https://doi.org/10.3390/jcm12186069)
32. Tamis-Holland JE, Menon V, Johnson NJ, et al. Cardiac Catheterization Laboratory Management of the Comatose Adult Patient With an Out-of-Hospital Cardiac Arrest: A Scientific Statement From the American Heart Association. *Circulation*. 2024;149:e274-e295. DOI: [10.1161/CIR.0000000000001199](https://doi.org/10.1161/CIR.0000000000001199)

33. Ubben JFH, Heuts S, Delnoij TSR, et al. Extracorporeal cardiopulmonary resuscitation for refractory OHCA: lessons from three randomized controlled trials-the trialists' view. *Eur Heart J Acute Cardiovasc Care*. 2023;12:540-547. DOI: [10.1093/ehjacc/zuad071](https://doi.org/10.1093/ehjacc/zuad071)

Group 5: Critical Care

34. Alviar CL, Miller PE, McAreavey D, et al. Positive Pressure Ventilation in the Cardiac Intensive Care Unit. *J Am Coll Cardiol*. 2018;72:1532-1553. DOI: [10.1016/j.jacc.2018.06.074](https://doi.org/10.1016/j.jacc.2018.06.074)
35. Damluji AA, Tehrani B, Sinha SS, et al. Position Statement on Vascular Access Safety for Percutaneous Devices in AMI Complicated by Cardiogenic Shock. *JACC Cardiovasc Interv*. 2022;15:2003-2019. DOI: [10.1016/j.jcin.20-22.08.041](https://doi.org/10.1016/j.jcin.20-22.08.041)
36. Fordyce CB, Katz JN, Alviar CL, et al. Prevention of Complications in the Cardiac Intensive Care Unit: A Scientific Statement From the American Heart Association. *Circulation*. 2020;142:e379-e406. DOI: [10.1161/CIR.0000000000000909](https://doi.org/10.1161/CIR.0000000000000909)
37. Geller BJ, Sinha SS, Kapur NK, et al. Escalating and De-escalating Temporary Mechanical Circulatory Support in Cardiogenic Shock: A Scientific Statement From the American Heart Association. *Circulation*. 2022;146:e50-e68. DOI: [10.1161/CIR.0000000000001076](https://doi.org/10.1161/CIR.0000000000001076)